

*Amendments to the Claims*

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Currently Amended) A method comprising:

(a) searching files in a memory of a customer premises equipment to identify frequently accessed domain names; and

(b) providing the frequently accessed domain names identified, responsive to the searching, to a communication interface in a form addressed for delivery to a network gateway, the communication interface transmitting the frequently accessed domain names to the network gateway configured to cache the frequently accessed domain names in a domain name system cache;

wherein the files in the memory comprise application data files that hold frequently accessed domain names.

2. (Currently Amended) The method of claim 1, wherein the customer premises equipment runs an operating system, and wherein ~~steps (a) and (b)~~ the searching and the providing are initiated during start-up of the operating system.

3. (Currently Amended) The method of claim 1, wherein the customer premises equipment runs an operating system, and wherein ~~steps (a) and (b)~~ the searching and the providing are initiated periodically by the operating system.

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4. (Currently Amended) The method of claim 1, wherein ~~steps (a) and (b)~~ the searching and the providing occur in response to the execution of an application by a user of the customer premises equipment.

5. (Currently Amended) The method of claim 1, wherein ~~step (a)~~ the searching comprises searching application data files associated with a Web browser application.

6. (Currently Amended) The method of claim 1, wherein ~~step (a)~~ the searching comprises searching application data files associated with an electronic mail application.

7. (Currently Amended) The method of claim 1, wherein ~~step (b)~~ the providing comprises packetizing the frequently accessed domain names and providing the packetized information to the communication interface.

8. (Currently Amended) The method of claim 1, wherein ~~step (b)~~ the providing comprises storing the frequently accessed domain names in a management information base and providing the management information base to the communication interface.

9. (Currently Amended) The method of claim 1, wherein ~~step (b)~~ the providing comprises generating a domain name system query that includes the frequently

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accessed domain name and providing the domain name system query to the communication interface.

10. (Currently Amended) A method for selectively caching domain name system information on a network gateway that includes a cache, wherein the network gateway is attached to a customer premises equipment that includes a memory, comprising the steps of:

- (a) searching files in the memory to identify a frequently accessed domain name;
- (b) providing the frequently accessed domain name identified, responsive to the searching, from the customer premises equipment to the network gateway;
- (c) generating, in the gateway, a domain name system query that includes the frequently accessed domain name;
- (d) transmitting the domain name system query from the network gateway to a network for resolution;
- (e) receiving, in the gateway, a response to the domain name system query from the network that includes the frequently accessed domain name and a corresponding IP address; and
- (f) storing the frequently accessed domain name and the corresponding IP address in the cache;

wherein the files in the memory comprise application data files that hold frequently accessed domain names.

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11. (Currently Amended) The method of claim 10, wherein the customer premises equipment runs an operating system, and wherein ~~steps (a) and (b)~~ the searching and the providing are initiated during start-up of the operating system.

12. (Currently Amended) The method of claim 10, wherein the customer premises equipment runs an operating system, and wherein ~~steps (a) and (b)~~ the searching and the providing are initiated periodically by the operating system.

13. (Currently Amended) The method of claim 10, wherein ~~steps (a) and (b)~~ the searching and the providing occur in response to the execution of an application by a user of the customer premises equipment.

14. (Currently Amended) The method of claim 10, wherein ~~step (a)~~ the searching comprises searching application data files associated with a Web browser application.

15. (Currently Amended) The method of claim 10, wherein ~~step (b)~~ the providing comprises searching application data files associated with an electronic mail application.

16. (Currently Amended) The method of claim 10, wherein ~~step (b)~~ the providing comprises packetizing the frequently accessed domain name and transmitting the packetized information to the network gateway.

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17. (Currently Amended) The method of claim 10, wherein ~~step (b)~~ the providing comprises storing the frequently accessed domain name in a management information base and providing the management information base to the network gateway.

18. (Currently Amended) The method of claim 10, wherein ~~step (d)~~ the transmitting comprises transmitting the domain name system query to a domain name server on the network for resolution.

19. (Currently Amended) The method of claim 10, wherein ~~step (e)~~ the generating comprises generating a domain name system query in accordance with an iterative resolution protocol.

20. (Currently Amended) The method of claim 10, further comprising:

(g) receiving, in the network gateway, a domain name system query from the customer premises equipment; and

(h) resolving, in the network gateway, the domain name system query from the customer premises equipment using a domain name and corresponding IP address stored in the cache.

21. (Currently Amended) A method for selectively caching domain name system information on a network gateway that includes a cache, wherein the network gateway is attached to a customer premises equipment that includes a memory, comprising the steps of:

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- (a) searching files in the memory to identify a frequently accessed domain name;
- (b) generating, in the customer premises equipment, a domain name system query that includes the frequently accessed domain name identified;
- (c) providing the domain name system query responsive to the searching, from the customer premises equipment to the network gateway;
- (d) transmitting the domain name system query from the network gateway to a network for resolution;
- (e) receiving, in the gateway, a response to the domain name system query from the network that includes the frequently accessed domain name and a corresponding IP address; and
- (f) storing the frequently accessed domain name and the corresponding IP address in the cache;

wherein the files in the memory comprise application data files that hold frequently accessed domain names.

22. (Currently Amended) A customer premises equipment, comprising:

a memory configured to store files comprising application data files that hold frequently accessed domain names;

a communication interface configured to transmit the frequently accessed domain names identified, responsive to the searching, in a form addressed for delivery to a network gateway, to the network gateway configured to cache the frequently accessed domain names in a domain name system cache; and

a processor coupled to the memory and the communication interface and configured to search the application data files to identify the frequently accessed domain

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names and to provide the frequently accessed domain names to the communication interface.

23. (Previously Presented) The customer premises equipment of claim 22, wherein the memory comprises a hard disk drive.

24. (Previously Presented) The customer premises equipment of claim 22, wherein the communication interface is a home phonline network interface, an Ethernet interface or a Universal Serial Bus interface.

25. (Previously Presented) The customer premises equipment of claim 22, wherein the application data files are associated with a Web browser application.

26. (Previously Presented) The customer premises equipment of claim 22, wherein the application data files are associated with an electronic mail application.

27. (Previously Presented) The customer premises equipment of claim 22, wherein the processor is configured to provide the frequently accessed domain names to the communication interface by packetizing the frequently accessed domain names and providing the packetized information to the communication interface.

28. (Previously Presented) The customer premises equipment of claim 22, wherein the processor is configured to provide the frequently accessed domain names to the communication interface by storing the frequently accessed domain names in a

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management information base and providing the management information base to the communication interface.

29. (Previously Presented) The customer premises equipment of claim 22, wherein the processor is configured to provide the frequently accessed domain names to the communication interface by generating a domain name system query that includes the frequently accessed domain name and providing the domain name system query to the communication interface.

30. (Currently Amended) A system for selectively caching domain name system information in a network gateway, comprising:

a customer premises equipment (CPE) including a memory that stores files, a communication interface for transmitting information over a communication path, and a CPE processor coupled to the memory and the communication interface, wherein the CPE processor is configured to search the files to identify a frequently accessed domain name and to provide the frequently accessed domain name identified, responsive to the searching, to the communication interface for transmission over the communication path; and

a network gateway including a cache, a CPE interface for receiving information over the communication path, a network interface for transmitting information over a network, and a gateway processor coupled to the cache, the CPE interface, and the network interface, the gateway processor configured to receive the frequently accessed domain name from the communication path via the CPE interface, to generate a domain name system query that includes the frequently accessed domain name, to provide the



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query to the network interface for transmission to a network for resolution, to receive a response to the query from the network via the network interface that includes the frequently accessed domain name and a corresponding IP address, and to store the frequently accessed domain name and the corresponding IP address in the cache;

wherein the files in the memory comprise application data files that hold frequently accessed domain names.

31. (Previously Presented) The system of claim 30, wherein the memory in the customer premises equipment comprises a hard disk drive.

32. (Previously Presented) The system of claim 30, wherein the communication path is a home phoneline network, an Ethernet, or a Universal Serial Bus.

33. (Previously Presented) The system of claim 30, wherein the application data files are associated with a Web browser application.

34. (Previously Presented) The system of claim 30, wherein the application data files are associated with an electronic mail application.

35. (Previously Presented) The system of claim 30, wherein the CPE processor is configured to provide the frequently accessed domain name to the communication interface by packetizing the frequently accessed domain name and providing the packetized information to said communication interface.

36. (Previously Presented) The system of claim 30, wherein the CPE processor is configured to provide the frequently accessed domain name to the communication interface by storing the frequently accessed domain name in a management information base and providing the management information base to the communication interface.

37. (Previously Presented) The system of claim 30, wherein the network interface transmits the query to a domain name server on the network for resolution.

38. (Previously Presented) The system of claim 30, wherein the gateway processor is configured to generate the domain name system query in accordance with an iterative resolution protocol.

39. (Currently Amended) A computer-readable storage device having instructions stored thereon that, upon execution by a computing device, cause the computing device to perform operations comprising:

searching files in a memory of a customer premises equipment to identify frequently accessed domain names; and

providing the frequently accessed domain names identified, responsive to the searching, to a communication interface in a form addressed for delivery to a network gateway, the communication interface transmitting the frequently accessed domain

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names to the network gateway configured to cache the frequently accessed domain names in a domain name system cache;

wherein the files in the memory comprise application data files that hold frequently accessed domain names.

40. (Previously Presented) The computer-readable storage device of claim 39, wherein the application data files comprise application data files associated with a Web browser application.

41. (Previously Presented) The computer-readable storage device of claim 39, wherein the application data files comprise application data files associated with an electronic mail application.

42. (Previously Presented) The computer-readable storage device of claim 39, wherein providing the frequently accessed domain names to the communication interface comprises packetizing the frequently accessed domain names and providing the packetized information to the communication interface.

43. (Previously Presented) The computer-readable storage device of claim 39, wherein providing the frequently accessed domain names to the communication interface comprises storing the frequently accessed domain names in a management information base and providing the management information base to the communication interface.

44. (Previously Presented) The computer-readable storage device of claim 39, wherein providing the frequently accessed domain names to the communication interface comprises generating a domain name system query that includes the frequently accessed domain name and providing the domain name system query to the communication interface.

45. (Previously Presented) The method of claim 1, wherein the customer premises equipment comprises a personal computer.

46. (Previously Presented) The method of claim 10, wherein the customer premises equipment comprises a personal computer.

47. (Previously Presented) The method of claim 21, wherein the customer premises equipment comprises a personal computer.

48. (Previously Presented) The customer premises equipment of claim 22, wherein the customer premises equipment is a personal computer.

49. (Previously Presented) The system of claim 30, wherein the customer premises equipment comprises a personal computer.

50. (Previously Presented) The computer-readable storage device of claim 39, wherein the customer premises equipment comprises a personal computer.

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51. (Currently Amended) A method comprising:

receiving, at a network gateway device, a frequently accessed domain name in a form addressed for delivery to the network gateway device, the frequently accessed domain name identified from searched files comprising application data files that hold frequently accessed domain names in a memory of a customer premises equipment, wherein the frequently accessed domain name is received responsive to searching of the searched files; and

caching, at the network gateway device, the frequently accessed domain name in a domain name system cache.

52. (Previously Presented) The method of claim 51, further comprising:

generating a domain name system query that includes the frequently accessed domain name; and

transmitting the domain name system query from the network gateway to a network for resolution.

53. (Previously Presented) The method of claim 52, further comprising:

receiving a response to the domain name system query from the network, the response including the frequently accessed domain name and a corresponding IP address; and

storing the frequently accessed domain name and the corresponding IP address in the domain name system cache.

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54. (Currently Amended) A network gateway, comprising:

a communication interface configured to receive a frequently accessed domain name in a form addressed for delivery to the network gateway, the frequently accessed domain name identified from searched files comprising application data files that hold frequently accessed domain names in a memory of a customer premises equipment, wherein the frequently accessed domain name is received responsive to searching of the searched files; and

a domain name system cache configured to store the frequently accessed domain name.

55. (Previously Presented) The network gateway of claim 54, wherein the communication interface is further configured to transmit a domain name system query that includes the frequently accessed domain name to a network for resolution.

56. (Previously Presented) The network gateway of claim 55, wherein the communication interface is further configured to receive a response to the domain name system query from the network, the response including the frequently accessed domain name and a corresponding IP address, and wherein the domain name system cache is further configured to store the frequently accessed domain name and the corresponding IP address in the domain name system cache.

57. (New) The method of claim 1, wherein providing the frequently accessed domain names in a form addressed for delivery to the network gateway comprises

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providing the frequently accessed domain names in a cache message format of the network gateway.

58. (New) The method of claim 10, wherein providing the frequently accessed domain name comprises providing the frequently accessed domain name in a cache message format of the network gateway.

59. (New) The method of claim 21, wherein providing the domain name system query comprises providing the domain name system query in a cache message format of the network gateway.

60. (New) The customer premises equipment of claim 22, wherein the frequently accessed domain names comprise a cache message format of the network gateway.

61. (New) The system of claim 30, wherein the frequently accessed domain name is provided to the communication interface in a cache message format of the network gateway.

62. (New) The computer-readable storage device of claim 39, wherein providing the frequently accessed domain names comprises providing the frequently accessed domain names in a cache message format of the network gateway.

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63. (New) the method of claim 51, wherein receiving the frequently accessed domain name comprises receiving the frequently accessed domain name in a cache message format of the network gateway device.

64. (New) The network gateway of claim 54, wherein the frequently accessed domain name comprises a cache message format of the network gateway.

65. (New) The method of claim 10, wherein providing the frequently accessed domain name comprises providing a plurality of frequently accessed domain names in a single transaction.